

## ***Rulison Monitoring Results***

### **Battlement Mesa 35-21D**

**Well:** Gas production well, Battlement Mesa 35-21D, API # 05-045-12505

**Operator:** Noble Energy Incorporated

**Sampler:** U.S. Department of Energy, Office of Legacy Management, Grand Junction, CO.

**Date of Sampling Event:** 22 January 2009

A produced water sample was collected from production well BM 35-21D.

Location data for the surface collection point and the sample location are given in Table 1. A description of each sample collected is listed in Table 2.

*Table 1. Well BM 35-21D, API # 05-045-12505*

Sample Point Location	Location	Sample Location						
		Sea Level elevation (feet)	Distance (feet) from		Surface		Distance from GZ (miles)	Heading from GZ (deg)
			N-S Section line	E-W Section line	Latitude (NAD 27)	Longitude (NAD 27)		
<b>Surface</b>	NENW S35 T7S R95W	9236.0	754 FNL	2,105 FWL	39.398842	-107.965979	1.07	S70.2°W
<b>Subsurface</b>	NENW S35 T7S R95W	114.5	4,119 FNL	1,936 FWL	39.397843	-107.965577	1.08	S67.0°W

Location data updated 29 January 2009.

NA: not available

The subsurface elevation is at the bottom of the well.

**Link** to Colorado Oil and Gas Conservation Commission information about well BM 35-21D:

<http://oil-gas.state.co.us/cogis/FacilityDetail.asp?facid=04512505&type=WELL>

Table 2. Sample Description

Sample Ticket No.	Location			Field Sample Matrix	Analytes	Samp Vol. (L)	Comments
	Name	Type	Sub-type				
HCY 496	BM 35-21D	TS	TINT	Water	3H, 36Cl, Cl <sup>-</sup>	0.5	Wellhead pressure ≈ 195 psi; T ≈ 65.6°F. The separator for this well is not paired with another separator. This well makes very little water, ≈ 200 mL was collected.

TINT: treatment system internal location

3H: tritium

36Cl: chlorine 36

mL: milliliter

Cl<sup>-</sup>: chloride

The water sample was submitted to GEL Laboratories, Charleston, South Carolina, for analyses of chloride, chlorine 36, and tritium. The results are listed in Table 3.

Table 3. Produced Water Sample HCY-496 Results, GEL Laboratories

**RESULTS REPORT**

**RIN: 09012065**

**Site: Rulison Site**

**Location: BM 35-21D**

**Ticket Number: HCV 496**

**Report Date: 3/11/2009**

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Standard <sup>1</sup>
H-3	pCi/L	01/22/2009	N001	-70.2	U			20,000
Chloride-36	pCi/L	01/22/2009	N001	-32.8	U	J		
CHLORIDE	mg/L	01/22/2009	N001	15100		J		

<sup>1</sup> USEPA Primary Radionuclide Drinking Water Standard.